# Cholera Mortality during Urban Epidemic, Dar es Salaam, Tanzania, August 16, 2015– January 16, 2016

MORTALITY INV	ESTIGATION	
Date of Interview:(day)/(month)/2015		
Address of Deceased:		
Region:	_	
District:		
Ward:	_	
Street	_	
Date of death reported on burial permit: Name of the deceased		(month)/2015
DECEDENT UNIQUE ID#		
Collect GPS coordinates at end of interview: La Longitude		
Informed Consent (English)		

#### **Introduction and Purpose**

**Technical Appendix 2** 

Hello, I am working with the Tanzanian Ministry of Health and Social Welfare (MOHSW) to investigate the ongoing cholera outbreak. We are trying to understand why people are dying from cholera so we can prevent more people from dying from cholera in the future. Your answers to these questions may help us prevent other people from getting cholera. You and your family are free to choose whether or not to participate in this investigation. You are also free to say no to any part of this investigation. There is no penalty if you or your family do not want to participate.

#### **Procedures**

If you decide to participate, we will ask you some questions today. The questions will be about you, your deceased family member, how your family obtained treatment and, if anyone was sick with cholera, details on what happened.

## **Risks or Discomforts**

This study will involve minimal risk to you. Since we will be asking about your deceased family member, some of these questions may make you sad or uncomfortable. You can take a break, skip any questions that are uncomfortable, or end the survey if it is too difficult to talk about your family member.

## **Benefits**

Taking part in the program may help other people because we can learn what communities are doing to deal with the cholera outbreak. The things we learn may prevent other people from dying from cholera in the future and will help to increase support for fighting cholera in communities in Tanzania.

## **Compensation**

There is no cost or payment for being in the study.

#### **Confidentiality**

To the extent legally possible, we will keep your answers to all questions secret. All of the information will be password-protected and kept in a special place. We will not put your name or the name of your family members on any report of this project.

# Right to Refuse or Withdraw

Your participation today is voluntary. If there are questions you do not like, you do not have to answer them. You can stop at any time after giving your consent. There are no penalties for not being in the study.

## **Contact information for questions and concerns**

If you have questions about the program or feel you have been harmed, you may contact your tencell leader or the study coordinator, Amani Massey at 0787754858.

<b>Q</b> #	PRE-INTERVIEW
P.0	Did the interviewee Consent?
	1. Yes 0. No 99. Don't Know
	If YES → Proceed to P.1
	If NO → Thank them and end the interview
P.1	Take a picture of the consent form
P.2	Select appropriate enumerator name:
	1. ** 2. *** 3. *** 4. ***
P.3	Select District
P.4	Select Ward
P.5	Select Unique ID of the person Named

Elicit answers from family member of the deceased (if deceased was  $<16 \Rightarrow$  ask mother, if  $\ge 16 \Rightarrow$  ask for head of household/primary caregiver). Please use the name of the person who has died wherever it says "deceased".

Thank you. I would like to start by asking you some questions about your deceased family member and the disease called cholera.

0.11	GGDDDANIA OVIDGDVOVG
Q#	SCREENING QUESTIONS
1.	Have you ever heard of cholera?
	1. Yes 0. No
	If yes → Proceed to Q2
	If no → Read: "Cholera is a disease caused by a bacteria. Symptoms often include rapid onset
	watery diarrhea that looks like rice water. People can dehydrate rapidly from this disease."
2.	Could you confirm the name of the person who died of rapid onset watery diarrhea (cholera)?
	country of committee further of the person who dred of rupid onset watery distribute (enoterny).
	Input name into text field.
3.	Our records indicate a date of death on or around {date of death}. Is this correct?
3.	· · · · · · · · · · · · · · · · · · ·
	1. Yes 0. No 99. Don't know
	If yes $\rightarrow$ proceed to q5
	If no → proceed to q4
4.	What date did {name} die?
	Input date into the calendar field.
5.	Did they tell you why {name} died?
	1. Yes 0. No 77. Decline to answer 99. Don't know
	If yes → What did they tell you was cause of death? ( <i>Input cause of death into text field</i> )
	If no, decline or don't know → Q6
6.	Did anyone else in your home die of rapid onset watery diarrhea (cholera) in 2015?
••	1. Yes 0. No
	If Yes → How many? Input number in number field
	If No $\rightarrow$ Q7

I am very sorry to hear that. Now I would like to ask you some questions about yourself.

<b>Q</b> #	Respondent Information
7.	
	Name of Respondent
8.	
	Age of Respondent(years)
9.	
	Sex of Respondent 1. Male 2. Female
10.	What is your relationship to the deceased? (try and interview the spouse or main caregiver
	of the deceased)
	1. Spouse
	2. Child
	3. Parent
	4. Sibling
	88. Other (specify)
11.	What is the last year of school which you have completed?:
	1. None
	2. Some primary school
	3. Completed primary school
	4. Some secondary school
	5. Completed secondary school or higher
	88. Other (specify)

Now I will ask you some questions about (name of deceased)

<b>Q</b> #	<b>Decedent Information</b>			
12.	Including (name of decreased), how many people lived in	the house	(slept her	e and shared
	meals) at the time he/she died?			
	(number of persons, including deceased)			
13.	What was the age of {name of deceased}?			
10.	That was the age of (name of deceased).			
14.	What was the sex of (name of deceased)?			
	1. Male 0. Female			
	What was the religion of (name of deceased)?			
15.	1. Christian			
	2. Muslim			
	88. Other(specify)			
	99. Don't know			
16.	What was the last year of school (name of decreased) com	pleted? (C	CIRCLE O	NE)
	1. None			
	2. Some primary school			
	3. Completed primary school			
	4. Some secondary school			
	5. Secondary school or higher			
15	88. Other (specify)			
17.	What was the occupation of (name of decreased)?			
	<ol> <li>Unemployed</li> <li>Housewife</li> </ol>			
	3. Petty trader			
	4. Food vendor			
	5. Healthcare worker			
	6. Day worker			
	7. Student			
	88. Other			
	99. Unknown			
18.	Do your household own any of the following? (ASK EAC	H OPTIO	N)	
		1. Yes	0. No	99. Don't
				know
	Radio			
	Bank Account			
	Iron (Charcoal or electric)			
	Motorcycle			
	Mobile telephone			
	Animals (i.e. cows, goats, chickens, pigs)			
	Television			
19.	What type of fuel does your household mainly use for coo	_		
20	1. Charcoal 2. Firewood 88. Other		99. Don't	know
20.	What is the main source of energy for lighting in the house			
	1. Electricity 88. Other 99. Dor	ı't know		

Now I will ask you about the **symptoms** that (*name of deceased*) had during the week prior to dying

Q#	Symptom Information
21.	What symptoms did {name of deceased} have in the week before dying?
	Vomiting 1. Yes 0. No 99. Don't Know
	Diarrhea 1. Yes 0. No 99. Don't Know
	Fever 1. Yes 0. No 99. Don't Know
	Headache 1. Yes 0. No 99. Don't Know
	Other
22.	Do you know what date {name of deceased}'s diarrhea began?
	1. Yes 0. No
	1. 165 0. 140
	If yes → Fill out date in calendar
	If no $\rightarrow$ Q23
	11 110 7 Q23
23.	On average, how many stools did (name of decreased) have after he/she became ill?
	1. Less than 3 stools per day
	2. Between 3-10 stools per day
	3. Greater than 10 stools per day
	99. Don't know
24.	Approximately how many hours after developing diarrhea did the deceased die?
	1. Less than 4 hours
	2. 5-8 Hours
	3. 9-12 Hours
	4. 13-24 Hours
	5. 25-48 Hours
	6. Greater than 48 hours
	99. Don't know/don't remember
	99. Don't know/don't temember
25.	[If deceased was older than 11 and female, ask this question] Was (name of deceased)
45.	pregnant?
	1. Yes 0. No 99. Don't Know
26.	Was the ( <i>name of deceased</i> ) ever told by a health care provider that he/she had any of the
20.	following: (READ EACH CHOICE)
	Attention: Ask these questions in a private manner.
	Tuberculosis Yes No Don't Know
	Cancer Yes No Don't Know
	HIV/AIDS Yes No Don't Know
	Is there any other previous illness that I did not ask about?
	Other illness

We would also like to understand more about the usual health and diet of (name of deceased).

27.	[If deceased is less than 15 years of age, SKIP to Q30]
	Did the deceased ever drink alcohol (beer, local brew, Mnazi/Chibuku)?
	1. Yes 0. No 99. Don't Know
	<i>If YES</i> → <i>Q</i> 28
	If $NO \rightarrow Q30$
28.	Did the deceased drink alcohol every day?
	1. Yes 0. No 99. Don't Know
29.	Did the deceased drink alcohol the day he or she became ill?
	1. Yes 0. No 99. Don't Know

Now I will ask you about the care (name of deceased) received **at home** after becoming ill with cholera.

<b>Q</b> #	Care at Home
30.	Did (name of deceased) take any medicine or treatment at home after this illness began?
	1. Yes 0. No 99. Don't know
	If YES $\rightarrow$ Q31
	If NO or Don't know → Q32
31.	What medicines did he/she take <u>at home</u> ? ( <b>Do NOT READ</b> , CHECK ALL THAT APPLY)
	1. Antibitoic
	Specify antibiotic (if caregiver
	knows)
	2. ORS
	3. Traditional medicines/herbs
	88. Other ( <i>specify</i> )
	99. Don't know
32.	Did (name of deceased) take ORS at home?
	1. Yes 0. No 99. Don't know
	If $YES \rightarrow Q33$
	$ IfNO  \rightarrow Q34$
	If don't know → Q35
33.	Where was the ORS obtained? (CIRCLE ONE)
	1. Health Center (Dispensary)
	2. Market
	3. Pharmacy
	4. From a petty trader
	5. From a friend/neighbor/family member
	6. Red Cross
	7. Another NGO
	88. Other (please specify):-
	99. Don't know

34.	Why didn't (name of deceased) take ORS at home? (DO NOT READ, circle all that apply)
	1. He/she did not know what ORS was
	2. ORS was too expensive
	3. ORS was not available in the local stores
	4. He/she did not know where to find ORS
	5. He/she did not think ORS would help the symptoms of this illness
	88. Other (please specify):-
	99. Don't know
35.	Did the deceased drink fluids at home after the illness began?
	1. Yes 0. No 99. Don't know
	If YES→ Q36 If NO or Don't know → Q37
36.	What did they drink? (CIRCLE ALL THAT APPLY)READ ALL OPTIONS
	1. Water
	2. Juice/soda/soft drink
	3. Home-made Water/sugar/salt solution
	4. Traditional medicine/herbs
	88. Other
	99. Don't Know
1	

Now I will ask you about the care (*name of deceased*) received outside the home **after** becoming ill with cholera. This could be at a hospital, dispensary, or care given by a traditional healer.

<b>Q</b> #	Outside Care
37.	Once your family member became ill, how long did it take for he or she to seek care?
	Hours or Days (circle one)
38.	Did the (name of deceased), or a relative acting on their behalf, seek any type of care outside the home (such as at a health center/hospital/CTC) after this illness began?  1. Yes 0. No 99. Don't know  If YES

**39.** What is the main reason (name of deceased) did **NOT** go to a hospital or health center for treatment? (DO NOT READ. CIRCLE ONLY ONE) 1. Died in transit/on the way to the health center 2. Cost of care at the health center was too much 3. Did not have transportation 4. Did not feel safe travelling at night 5. Transportation cost too much 6. Clinic was too far 7. Too ill to leave home 8. Did not know s/he had cholera 9. Did not know that cholera could be treated 10. Did not want others to know that s/he was sick (shame) 11. Did not think s/he needed medical care 12. Thought God would cure them 13. Prefered a traditional healer 14. Facility was closed 15. Too long of a waiting time at health center 16. Fear of mistreatment by the medical staff 88. Other 99. Don't Know Are there any other reasons that he/she didn't seek care at the hospital or health center? 40. (**DO NOT READ**. CIRCLE ALL THAT APPLY) 1. Died in transit/on the way to the health center 2. Cost of care at the health center was too much 3. Did not have transportation 4. Did not feel safe travelling at night 5. Transportation cost too much 6. Clinic was too far 7. Too ill to leave home 8. Did not know s/he had cholera 9. Did not know that cholera could be treated 10. Did not want others to know that s/he was sick (shame) 11. Did not think s/he needed medical care 12. Thought God would cure them 13. Prefered a traditional healer 14. Facility was closed 15. Too long of a waiting time at health center 16. Fear of mistreatment by the medical staff 88. Other 99. Don't Know

Where did (name of deceased) seek care? [read choices, check all that apply, travel time to facility in hours/minutes, how long they waited at the treatment facility, record if they spent the night and if they were discharged alive)

Circle all that apply	of Transport used 1. Taxi 2. Bajaji 3. Walked 4. Boda boda 5. Dala dala 6. Carried by	How long did it take {name deceased} or the relative to get from home to treatment	Waiting time at the location/ health facility 1. Immediate care/no wait 2. <1 hour 3. 1 – 3 hours 4. >3 hours	Treatment received? (CIRCLE)	Spend the night? (CIRCLE)	Discharged Alive? (CIRCLE)
	family/ friends 7. Ambulance 8. Other	location? (integer)  Hrs / Minutes (circle)				
42. Pharmacy 1. Yes 2. No 99. DK (name) Who sought care? 1. Relative 2. Deceased		Hrs / Minutes		1. ORS 2. IV fluids 3. Antibiotics 4. Other:	Not applicable	1.Yes 2. No 99. DK
43. Traditional healer 1.Yes 2. No 99. DK (name) Who sought care? 1. Relative		Hrs / Minutes		1. ORS 2. IV fluids 3. Antibiotics 4. Other:	1.Yes 2. No 99. DK	1.Yes 2. No 99. DK
2. Deceased  44. Dispensary (name)  1. Yes		Hrs / Minutes		1. ORS 2. IV fluids 3. Antibiotics 4. Other:	1.Yes 2. No 99. DK	1.Yes 2. No 99. DK

2. No 99. DK			
45. Hospital Name:  1.Yes 2. No 99. DK	Hrs / Minutes	1. ORS 2. IV fluids 3. Antibiotics 4. Other:  ———————————————————————————————————	1.Yes 2. No 99. DK
46. CTC/Transit Center Name:  1.Yes 2. No 99. DK	Hrs / Minutes	1. ORS 2. IV fluids 3. Antibiotics 4. Other:	1.Yes 2. No 99. DK
47. Other (specify):	Hrs / Minutes	1. ORS 2. IV fluids 3. Antibiotics 4. Other:	1.Yes 2. No 99. DK

Now I will ask some questions about cholera in general.

Q#	Knowledge
48.	Please name all the ways you received information about cholera? (Do not read, CIRCLE
	ALL THAT APPLY)
	1. Radio
	2. Television
	3. Newspaper
	4. Flyer/brochure/poster
	5. Community health worker
	6. Community meeting
	7. Street chairperson
	8. 10 cell leader
	9. Health care facility staff
	10. Friend
	11. Family member
	12. Public dances
	13. Students from the local schools
	88. Other (specify)
	99. Don't know/don't remember
49.	Can cholera be prevented?
	1. Yes 2. No 99. Don't know
	If Yes →50
	If No $\rightarrow$ 51
<b>50.</b>	If yes, Please name all the ways to <b>prevent</b> cholera ( <b>DO NOT READ</b> , CIRCLE ALL THAT
	APPLY)
	1. Boil or treat water with chlorine
	2. Build and use latrines
	3. Wash hands with soap and water (ash or sand)
	4. Cook food well
	5. Cover food to protect from flies
	6. Wash vegetables and fruit
	7. Clean house with chlorine solution
	8. Seek treatment for watery and/or bloody diarrhea
	9. Take an antibiotic pill
	10. Cholera cannot be prevented
	11. Not touching someone with cholera
	12. Avoid sharing food
	13. Avoid gatherings
	14. Vaccine
	88. Other (specify)
	99. Don't know
<b>51.</b>	Do you think cholera can be treated?
	1. Yes 0. No 99. Don't Know

<b>52.</b>	Please name all the things you would do if you were suffering from cholera. ( <b>DO NOT</b>
	READ, CIRCLE ALL THAT APPLY)
	1. Drink oral rehydration solution/ ORS
	2. Go to a pharmacy and buy antibiotics
	3. Go to a health facility
	4. Go to a cholera treatment center
	5. Go to a traditional healer
	88. Other (specify)
	99. Don't know
53.	Do you think it is necessary to go to a medical facility, like a health center, clinic, or hospital,
	if you have cholera?
	1. Yes 0. No 99. Don't know
	<i>If YES→ Q54</i>
	If NO/Don't know $\rightarrow$ Q55
<b>54.</b>	When should you go to a medical facility if you think you have cholera? (Do not read,
	CIRCLE ONE)
	1. Immediately
	2. After 24 hours (1 day)
	<ul><li>2. After 24 hours (1 day)</li><li>3. If there is vomiting and you cannot drink ORS or fluids</li></ul>
	<ol> <li>After 24 hours (1 day)</li> <li>If there is vomiting and you cannot drink ORS or fluids</li> <li>If there is blood in the stool</li> </ol>
	<ol> <li>After 24 hours (1 day)</li> <li>If there is vomiting and you cannot drink ORS or fluids</li> <li>If there is blood in the stool</li> <li>If diarrhea does not stop</li> </ol>
	<ol> <li>After 24 hours (1 day)</li> <li>If there is vomiting and you cannot drink ORS or fluids</li> <li>If there is blood in the stool</li> </ol>

Now, I will ask you some questions about your drinking water.

<b>Q</b> #	Water Information
55.	Did your household treat your drinking water before (name of deceased) became ill with
	cholera?
	1. Yes 0. No 99. Don't know
	<i>If YES</i> → <i>Q56</i>
	If NO/Don't know $\rightarrow Q57$
56.	What treatment method(s) did you use? (CIRCLE ALL THAT APPLY)
	1. Boil
	2. jik/chlorine
	3. Aquatabs
	4. Waterguard
	5. Filter
	88. Other (specify)
	99. Don't Know

<i>5</i> 7.	Did you treat your drinking water today?	
	1. Yes 0. No 99. Don't know	
	If YES $\rightarrow$ Q58	
	If NO/Don't know → Q59	
<b>58.</b>	What treatment method(s) did you use? (CIRC	LE ALL THAT APPLY)
	1. Boil	
	2. jik/chlorine	
	3. Aquatabs	
	4. Waterguard	
	5. Filter	
	88. Other (specify)	
	99. Don't Know	1.116
<b>7</b> 0	Did you collect your drinking water for the hor	usehold from a DAWASCO source?
59.	1. Yes 0. No 99. Don't know	
	If was -> 000	
	If yes $\rightarrow$ Q60	
	If No or Don't know → Q61	
	60. Select all that apply:	61. Select all that apply:
	<u>DAWASCO SOURCE</u>	NON-DAWASCO SOURCE
	1. Open deep well	1. Open deep well
	2. Protected or covered deep well	2. Protected or covered deep well
	3. Borehole	3. Shallow well/hand-dug well
	4. Piped water to house	4. Lake/Pond/River/Stream
	5. Community tap/kiosk	5. Borehole
	6. Water tank	6. Rain water catchment
	7. Water bowzer/truck	7. Piped water to house
	8. Water vendor (jerrycan)	8. Community tap/kiosk
	9. Bottled water	9. Water tank
	10. Other (specify)	10. Water bowzer/truck
		11. Water vendor (jerrycan)
		12. Bottled water
		13. Other (specify)
62.	"Do you have any products used for water trea	tment in the house?"
	1. Yes 0. No	
	<i>If YES</i> → <i>Q63</i>	
	If $NO \rightarrow Q64$	

63.	If YES, "MAY I SEE THE PRODUCT?" (CIRCLE ALL THAT APPLY)
	1. jik/chlorine
	2. Aquatabs
	3. Waterguard liquid/powder
	4. Filter
	88. Other (specify)
64.	"Do you have ORS in house?" (PLEASE OBSERVE DIRECTLY)
	1. Yes 0. No
65.	Do you know how to make oral rehydration salts?
	1. Yes 0. No
	If yes $\rightarrow$ Q66
	If no $\rightarrow$ Q67
<b>66</b> .	"Please tell me how you prepare ORS."
	(ANSWER: Take 1L of water into a container, treat the water, and stir-in the ORS packet)
	0. Do not know how to correctly make ORS
	<ol> <li>Correctly identify steps to make ORS</li> </ol>
<b>67.</b>	Would you be willing to speak with some of our team and other families that also had
	relatives die from cholera? (Do not read, but this is for people that would be interested
	in focus groups)
	0. No
	1. Yes → Take the name and phone number of the relative
Make	e the below quick observations regarding the home. If the interview is taking place outside

Make the below quick observations regarding the home. If the interview is taking place outside the home, please ask the interviewee the following questions and read each option out loud.

Q#	HOUSEHOLD OBSERVATIONS
60	What the of a fire death is been death and CIDCLE ONE (ODCEDUATION ONLY)
68.	What type of roofing does this household have (CIRCLE ONE)(OBSERVATION ONLY)
	1. Thatch
	2. Metal/iron sheet
	3. Tile
	4. Wood
	5. Cement
	88. Other:
<b>69.</b>	What type of flooring does this household have (CIRCLE ONE) (OBSERVATION ONLY)
	1. Mud
	2. Wood
	3. Cement
	4. Tile/linoleum
	88. Other:

70.	What type of material is used for the walls (CIRCLE ONE) (OBSERVATION ONLY)
	1. Mud
	2. Metal
	3. Wood
	4. Cement/plaster
	5. Bricks/blocks/stones

Thank you very much for your participation. We are very sorry for the loss of  $(name\ of\ decedent)$ 

88. Other:

COLLECT GPS COORDINATES OF THE HOME FOR THIS SURVEY AT ITS CONCLUSION.

The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of CDC.